

REMARKS

It is respectfully requested that the present Reply be entered into the Official File in view of the fact that the Reply automatically places the application in condition for allowance. Thus, the present Reply is believed to be in proper form for placing the application in condition for allowance.

In the alternative, if the Examiner continues with the rejections of the present application, it is respectfully requested that the present Reply be entered for purposes of an Appeal. The Reply reduces the issues on appeal by overcoming the objection to the drawings and/or the rejection(s) under 35 U.S.C. § 103(a). Thus, the issues on appeal would be reduced.

Status of the Claims and Drawings

In the present Reply, no claims are being canceled, added or amended. Thus, a listing of the claims is not necessary. Claims 1-14 are pending in this application.

The amendment to the written description obviously corrects a grammatical error and does not add new matter.

Figure 2 has been amended as apparent from the Replacement Sheet that is attached. No new matter has been added with the change to Figure 2 since this merely complies with the Examiner's comments shown in the Office Action at paragraph 1, page 2.

In view of the following remarks, Applicants respectfully request that the Examiner withdraw the objection and all rejections and allow the currently pending claims.

Drawings (Replacement Sheet)

With regard to the Examiner's designation of Figure 2 as --Prior Art-- (see paragraph 1 of the Office Action), Applicants respectfully refer the Examiner to the Replacement Sheet as attached. Approval of the drawings and withdrawal of this rejection are respectfully requested.

Further, Applicants add that they are not admitting Figure 2 of the specification is "prior art". See *Riverwood Int'l Corp. v. R.A. Jones & Co.*, 324 F.3d 1346, 1354, 66 USPQ2d 1331, 1337 (Fed. Cir. 2003).

Issues Under 35 U.S.C. § 103(a)

Claims 1-3, 5-12 and 14 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Higashiura *et al.* '140 (JP Patent No. 10-125140) in view of Hosoi '703 (JP Patent No. 04-345703) (see paragraphs 2-4 of the Office Action).

Also, claims 4 and 13 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Higashiura '140 in view of Hosoi '703, as applied to claims 1 and 6-10 above, further in view of Nakano *et al.* '238 (U.S. Patent No. 5,166,238) (see paragraph 5 of the Office Action).

Paragraph 6 of the Office Action contains the Examiner's reply to Applicants' previously submitted arguments.

Applicants respectfully traverse each rejection, including some of the remarks in paragraph 6 of the Office Action, and reconsideration and withdrawal thereof are respectfully requested.

The Present Invention

As recited in instantly pending claim 1, one feature of the present invention resides in the specific combination of an (inner) insulating layer and a second insulating layer that is positioned outside of the mentioned inner layer. That is, as recited in pending claim 1, the inner layer is composed of a polyethersulfone resin.

In pending claim 6, the inner layer is composed of a resin mixture made by blending 100 parts by weight of resin (A) of at least one selected from the group consisting of a polyetherimide resin and a polyethersulfone resin, and 10 parts by weight or more of resin (B) of at least one selected from the group consisting of a polycarbonate resin, a polyarylate resin, a polyester resin and a polyamide resin. Further, as recited in each of claims 1 and 6, the outer layer is composed of polyphenylenesulfide resin.

The instant rejections are improper for the following reasons.

Unexpected Results for the Present Invention Rebut any asserted *Prima Facie* case of obviousness

Applicants submit that this rejection under § 103(a) is overcome based on evidence of unexpected results for the present invention. Since no multi-layer insulated wire having a fluororesin coating is described in the Examples section of the specification (starting at page 29), Applicants have provided such a wire and tested and evaluated this comparative example. The comparative example is shown in the Rule 132 Declaration as attached herein (signed by one of the co-inventors for this application).

As one of skill in the art would understand upon reviewing the results in the Rule 132 Declaration, when a fluororesin is used in an inner layer of a resin-coated wire, since the fluororesin cannot be extrusion-coated at a high speed, the wire cannot be produced at a high speed due to relatively and conspicuously high production costs. In particular, Applicants respectfully refer the Examiner to the results shown in Table A of the Declaration. And as mentioned in Applicants' specification, drawbacks associated with conventional embodiments include the low efficiency in the production thereof and the high costs associated with producing such electrical wires (see, e.g., page 3, lines 15-19). Thus, the Rule 132 Declaration clearly shows that one of skill in the art would not be motivated, nor reasonably expect to be successful, in applying the disclosure in Hosoi '703 with Higashiura '140 (and even further with Nakano '238) due to such drawbacks. In this regard, the present inventors have produced an invention that is unexpectedly advantageous over conventional embodiments, such as that shown in the cited references. Reconsideration and withdrawal of both rejections are respectfully requested.

Distinctions over Cited Combinations of References

Applicants respectfully submit that the instant rejections are improper, and herein incorporate by reference the remarks of the previous Reply of November 29, 2004. In this previous Reply, Applicants stated that:

- one feature of the present invention resides in the specific combination of an (inner) insulating layer (e.g., polyethersulfone resin in claim 1; mixture in claim 6 that includes

polyetherimide resin or polyethersulfone resin) and a second insulating layer that is positioned outside of the mentioned inner layer (see pages 5-6 of the Reply);

- the present invention achieves unexpected results of better heat resistance, abrasion resistance, good solderability, etc. (compare to “Argument B”) at page 7 of the Office Action);
- unexpected results are achieved by combining at least one of the claimed inner layer materials (*i.e.*, polyetherimide resin and polyethersulfone resin) with a polyphenylenesulfide resin as the claimed outer layer material;
- Higashiura ‘140 fails to disclose or recognize any use of a polyphenylenesulfide resin in the outer layer as instantly claimed (see page 8 of the Reply) (compare to “Argument C”) at page 7 of the Office Action);
- Hosoi ‘703 lacks any description or suggestion of any objective, resulting effect, or action regarding improvement of chemical resistance and solvent resistance of an insulated wire, by using a polyphenylenesulfide resin in an outer layer (see pages 8-9 of the Reply) (compare to “Argument D”) at page 7 of the Office Action);
- Higashiura ‘140 and Hosoi ‘703 are improperly combined since, *e.g.*, an important feature in Hosoi ‘703 resides in not using such heat resistant engineering plastics as those disclosed in and used in the present invention, or even those disclosed in Higashiura ‘140 (page 10 of the Reply) (compare to “Argument E”) at page 7 of the Office Action);

- the Examiner's combinations of references would destroy the intended purpose of the Hosoi '703 reference (*i.e.*, using flexible fluoropolymer and polyphenylenesulfide resin) (pages 11-12 of the Reply);
- an inner layer composed of Higashiura '140 resin is taught as not being utilized in Hosoi '703 (pages 12-13 of the Reply) (compare to "Argument E)" at page 7 of the Office Action);
- and with respect to the second rejection under 35 U.S.C. § 103(a), despite any disclosure in Nakano '238 reference, the Examiner cannot ignore the teaching away present in Hosoi '703 and thus the three cited references are improperly combined (pages 13-14 of the Reply) (compare to "Argument E)" at page 7 of the Office Action).

Thus, upon reviewing Arguments A)-E) and the Examiner's response thereto starting at page 7 of the Office Action, Applicants respectfully submit that their previous arguments have been over-simplified since, as can be seen above, the Examiner's Summary of Arguments A)-E) cover a multitude of arguments. Further, Applicants' previous arguments have not been properly considered as explained below.

With respect to paragraph 6 of the Office Action, and in response to the Examiner's comments to Argument B) (at page 8, lines 15+ of the Office Action), Applicants respectfully submit that the previously submitted arguments are made with respect to how unexpected results rebut the *prima facie* case of obviousness, and that *Ex parte Obiaya* is inapplicable to the instant situation. Thus, it is not a matter of "recognized another advantage," but that the present

invention has achieved unexpected results. Further, Applicants respectfully refer the Examiner to the enclosed Declaration as support of Applicants' position.

With respect to page 9, line 11 to page 10, line 16 of the Office Action, Applicants respectfully disagree. Applicants' traversal is based on how an important feature in Hosoi '703 resides in not using such heat resistant engineering plastics as those disclosed in and used in the present invention, or even those disclosed in Higashiura '140 (see the previous Reply at, e.g., page 9). Further, Hosoi '703 lacks any description or suggestion of any objective, resulting effect, or action regarding improvement of chemical resistance and solvent resistance of an insulated wire, by using a polyphenylenesulfide resin in an outer layer. Thus, reconsideration of the previous remarks by Applicants is requested.

Additionally, in response to the Examiner's comments to Arguments C) and D) (see the Office Action at page 10, line 17 to page 11, line 12), Applicants respectfully disagree that the previously submitted remarks argued references individually. Applicants respectfully submit that it is clear that in the Reply of November 29, 2004, Applicants were relying on the deficiencies of each reference, because the references have been improperly combined. For instance, Applicants argued at page 10 of the Reply that an important feature in Hosoi '703 resides in not using such heat resistant engineering plastics as those disclosed in and used in the present invention, or even those disclosed in Higashiura '140. Thus, Applicants stated that combining such references is improper, and the Examiner's combination of reference would even destroy the intended purpose of the Hosoi '703 reference (*i.e.*, using flexible fluoropolymer and polyphenylenesulfide resin) (see pages 11-12 of the Reply). Overall, in the previous Reply, Applicants were relying on the

deficiencies of each reference, because the references have been improperly combined. Further, with regard to the Examiner's comments in this Office Action that the combination of disclosures suggest to one of ordinary skill in the art as being the proper test (citing the *In re Keller* case) is assuming that the references could be properly combined in the first place, wherein Applicants are traversing that the references could be properly combined in the first place.

Accordingly, Applicants herein request reconsideration of their previous remarks, as well as the remarks in this Reply, because it appears that Applicants' remarks have not been considered in the context of satisfying all requirements for a *prima facie* case of obviousness (*i.e.*, the requisite motivation). Reconsideration and withdrawal of these rejections are respectfully requested.

With respect to the Examiner's comments to Argument E) of how the cited references could be properly combined (see the Office Action at page 11, line 13 to page 12, line 18), Applicants respectfully disagree. Applicants note that both rejections involve combining the disclosure of Hosoi '703 with the other cited reference(s) to form the outstanding rejections. However, Applicants traverse the application of this reference in either cited rejection as follows.

Hosoi '703 discloses a resin-coated wire having two layers of an inner layer composed of a fluororesin composition, and an outer later composed of a polyphenylenesulfide resin (hereinafter referred to as "a PPS resin"). This wire in Hosoi '703 is similar to the conventional three-layer structure, which is a winding wherein a conductor is successively extrusion-coated with a fluororesin in place of an insulating tape whereby extrusion-coating layers composed of a

three-layer structure are formed for use as the insulating layers. This embodiment is also described in the "Background Art" section in Applicant's specification (see page 3, lines 10 to page 4, line 3).

However, although the insulating layer(s) formed from a fluororesin has good heat resistance, it has drawbacks as that pointed out in Hosoi '703. Specifically, the drawbacks include that when the insulating layer is pulled at a high shearing speed, the state of the external appearance deteriorates. Also, it is difficult to increase the production speed and the production cost of the electric wire is higher. As similarly mentioned at this part of Applicants' specification, the Hosoi '703 embodiment leads to the unavoidable operation of winding the tape, the efficiency of production is extremely low, and the cost of making the electrical wire undesirably increases (see page 3, lines 15-19). Applicants also refer the Examiner to the enclosed Declaration to show such problems in the art.

Thus, one of ordinary skill in the art would not combine Hosoi '703 with any of the other cited references in order to achieve the present invention. Instead, an embodiment having drawbacks like those discussed above would be produced, and Hosoi '703 is improperly combined with the other cited reference(s). Reconsideration and withdrawal of these rejections are respectfully requested.

Summary

In view of the above amendment to Figure 2 and the remarks herein, applicant believes the pending application is in condition for allowance.

Application No.: 10/720,282
Art Unit 2831
Reply to Office Action of February 3, 2005

Docket No.: 0234-0472P

Information Disclosure Statement

Applicants have not received a copy of the PTO-1449 form having the Examiner's initials next to each cited reference with regard to the Information Disclosure Statement filed on February 8, 2005. Thus, Applicants respectfully request such an initialed copy.

Conclusion

A full and complete response has been made to all issues as cited in the Office Action. Applicants have taken substantial steps in efforts to advance prosecution of the present application. Thus, Applicants respectfully request that a timely Notice of Allowance issue for the present case.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Eugene T. Perez (Reg. No. 48,501) at the telephone number of the undersigned below.

Application No.: 10/720,282

Docket No.: 0234-0472P

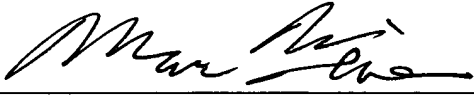
Art Unit 2831

Reply to Office Action of February 3, 2005

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Dated: July 1, 2005

Respectfully submitted,

By 

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Attachments: Drawing (Annotated and Replacement Sheets)
Rule 132 Declaration

Application No.: 10/720,282

Docket No.: 0234-0472P

Art Unit 2831

Reply to Office Action of February 3, 2005

AMENDMENTS TO THE DRAWINGS

The attached sheet(s) of drawings includes changes to Figure 2 by inserting the heading of "Prior Art". It is respectfully requested that the corrected formal drawings be approved and made a part of the record of the above-identified application.

Attachment: Replacement sheet



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Fig. 1

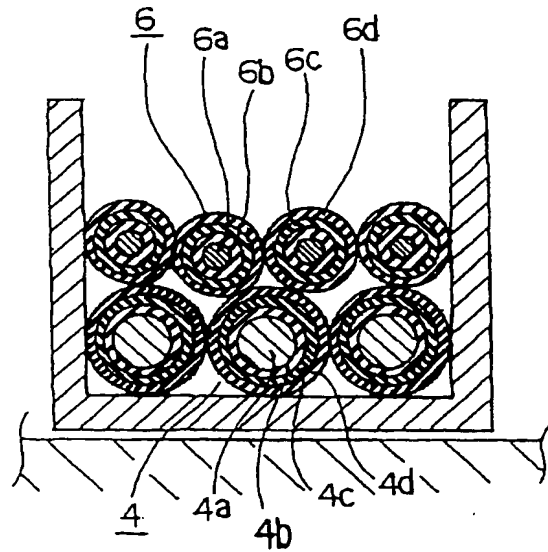


Fig. 2
Prior Art

